COVER SHEET

TEST PROCEDURE PREPARATION:

Prepared by: NSWC PHD DAMNECK DET CODE 6E10 Date: 1 DEC 98
TDA Organization and Code

TEST PROCEDURE REVIEW:

Reviewed by: NSWC PHD DAMNECK DET CODE 6D10 Date: 4 JAN 99
TDM Organization and Code

DOCUMENTATION CERTIFICATION:

Approved by: _____ Date: _____
TDD Organization and Code

REVISION RECORD

REV/CHG	DESCRIPTION	Approval INITIAL	Approval DATE
-	Original Issue	FES	18 DEC 98

LIST OF EFFECTIVE PAGES

PG-REV	PG-REV	PG-REV	PG-REV	PG-REV	PG-REV	PG-REV
1 -	2 -	3 -	4 -	5 -	6 -	7 -
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TEST OUTLINE

1. OBJECTIVE:

   To verify that the 63812-302101 Decoder, RADDS to Parallel Digital Theta (63812-302101 Decoder) is operating properly during initial lite-off.

2. ESTIMATED TESTING TIME:

   1 hour

3. REFERENCES:

   SE650-AQ-MMO-A10, Technical Manual, Operation and Maintenance for the Dual Signal Data Converter CV-3989(V)1/SP, EC-7, Addendum 1

4. TEST OR SUPPORT EQUIPMENT AND MATERIAL:

GENERIC NAME	QUANTITY	IDENTIFYING INFORMATION
a. Frequency Counter	1	SCAT 4296 or equivalent
b. Multimeter, Digital	1	SCAT 4237 or equivalent

5. COMPUTER PROGRAMS REQUIRED:

   None

6. PREREQUISITES:

   None

7. SPECIAL CONDITIONS AND SERVICES:

   115 VAC, 1 ϕ, 60 Hz Power

8. EQUIPMENT INVOLVED IN TEST:

   63812-302101 Decoder

9. CONFIGURATION:

   No field changes required to run this test.

10. METHOD:

    A visual inspection of the 63812-302101 Decoder shall be conducted to ensure it is free of damage, debris and loose wire connections. Ensure input and power supply voltage levels are within tolerance and Light Emitting Diode (LED) indicators are functional.

TEST OUTLINE

11. STATION ASSIGNMENTS:

STATION	NO. PERSONNEL	COMMENTS
63812-302101 Decoder	1 Electronic Technician	Performs ILO Test

SAFETY INSTRUCTIONS

a. The operation of this equipment involves the use of high voltages that are dangerous to life. Extreme caution must be exercised at all times. Do not work on open or disassembled units when power is applied.

b. Turning OFF the 63812-302101 Decoder by using the AC POWER Switch does not remove the ship 115 VAC.

INITIAL CONDITIONS AND SETUP

STEP	STATION	INSTRUCTIONS
		CAUTION The 302102-1 Decoder Modules are Electrostatic Discharge Sensitive. Observe ESD precautions while handling.
1	SPDP	Turn OFF and tag Main Circuit Breaker at Ship Power Distribution Panel (SPDP).
2	63812-302101 Decoder	Set AC POWER switch (Figure 1) to OFF position.
3	63812-302101 Decoder	Inspect equipment for: a. Presence of foreign matter. b. Loose cables and cable connections. c. Damaged or chaffed cable insulation. d. Loose or missing protective covers. e. Loose modules, fastening hardware, or circuit cards.
4	63812-302101 Decoder	Loosen Fasteners for 1A1A1 module (Part Number 302102-1) and remove module. Verify Switch S1 is set according to default settings on silkscreen. Verify Jumper Blocks J5 and J6 are set according to default settings on silkscreen.
5	63812-302101 Decoder	Reinstall 1A1A1 module, securing fasteners.
6		If modules 1A1A2 and 1A1A3 are installed, repeat steps 4 and 5 for each module.

INITIAL CONDITIONS AND SETUP

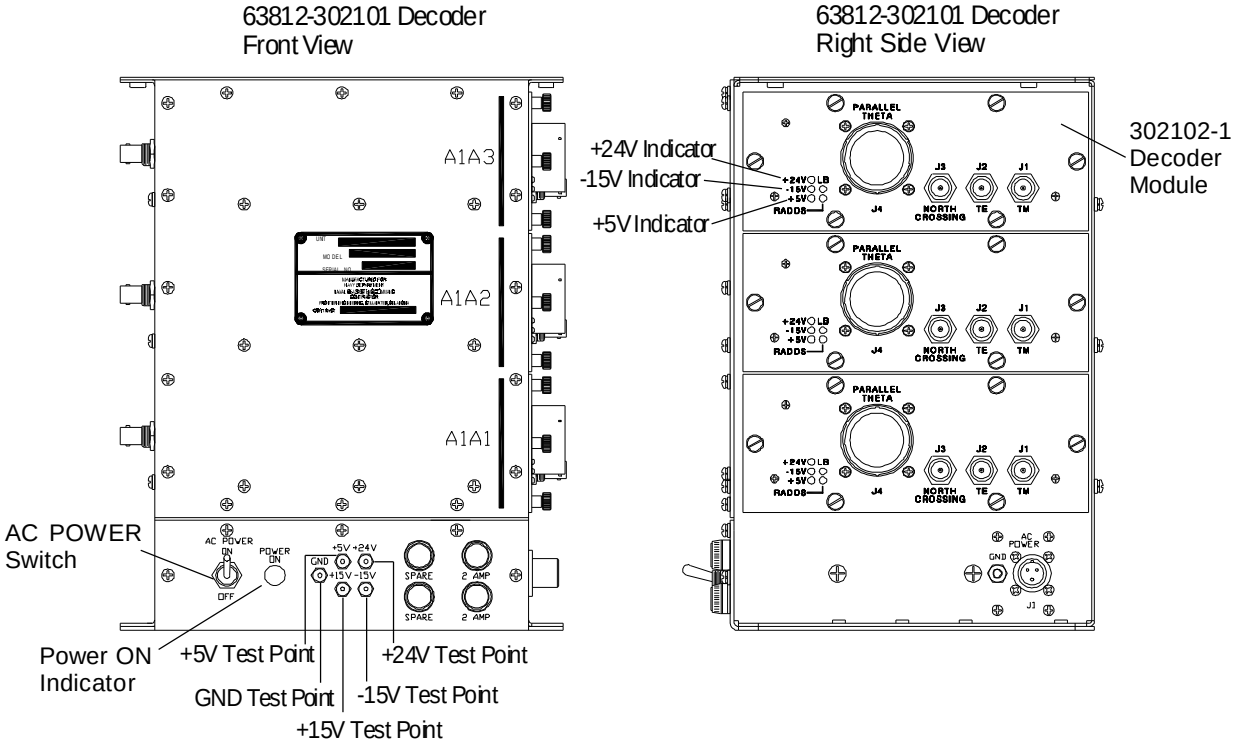

Figure 1. 63812-302101 Decoder

TESTING STEPS

STEP	STATION	INSTRUCTIONS
1	63812-302101 Decoder	Disconnect AC Input cable to J1 connector on the units side panel.
2	SPDP	Remove tag and turn ON Main Circuit Breaker at SPDP.
3	63812-302101 Decoder	Verify the following cable voltages and frequency. Contact — Signal Designation A to C — 105 VAC to 125 VAC B to Chassis Gnd — < 1 VAC A to C — ≥50 Hz to ≤63 Hz RECORD on Test Data Recording Sheet.
4	SPDP	Turn OFF and tag Main Circuit Breaker at SPDP.
5	63812-302101 Decoder	Reconnect AC Input cable to J1.
6	SPDP	Remove tag and turn ON Main Circuit Breaker at SPDP.
7	63812-302101 Decoder	Set AC POWER switch to ON position.
8	63812-302101 Decoder	Ensure Power ON indicator is illuminated. RECORD on Test Data Recording Sheet.

TESTING STEPS

STEP	STATION	INSTRUCTIONS
9	63812-302101 Decoder	Use a Multimeter to measure Power Supply voltages at the following test points. Test Point — Expected Value +5V — +4.75 VDC to +5.25 VDC +15V — +14.25 VDC to +15.75 VDC -15V — -14.25 VDC to -15.75 VDC +24V — +22.8 VDC to +25.2 VDC NOTE Connect the common black lead to a (GND) test point and measure the test points indicated. RECORD on Test Data Recording Sheet.
10	63812-302101 Decoder	Ensure voltage indicators for each module (Part Number 302102-1) are illuminated. Indicator +24V -15V +5V RECORD on Test Data Recording Sheet.

SHUTDOWN AND SECURING

STEP	STATION	INSTRUCTIONS
1	63812-302101 Decoder	Set AC POWER switch to OFF position.

TEST DATA RECORDING

EQUIPMENT UNDER TEST

EQUIPMENT	**SERIAL NO.**
63812-302101 Decoder	_____

PREREQUISITES

None

NOTE

Write "N/A" in ACTUAL RESULTS spaces for test sections where modules are not present in the 63812-302101 Decoder under test.

TEST DATA RECORDING

STEP	TEST ELEMENT	EXPECTED RESULTS	ACTUAL RESULTS
3	AC POWER INPUT CONNECTOR VOLTAGE LEVEL		
	J1 CONTACT		
	A to C	105 VAC to 125 VAC	_____VAC
	B to Chassis Ground	< 1 VAC	_____VAC
	A to C	≥50 Hz to ≤63 Hz	_____Hz
8	POWER ON INDICATOR IS LIT		
	AC POWER Switch	Indicator is Lit	_____
9	POWER SUPPLY TEST POINT VOLTAGES		
	Power Supply		
	+5V	+4.75 VDC to +5.25 VDC	_____VDC
	+15V	+14.25 VDC to +15.75 VDC	_____VDC
	-15V	-14.25 VDC to -15.75 VDC	_____VDC
	+24V	+22.8 VDC to +25.2 VDC	_____VDC

_____	_____	_____	_____
SHIP HULL NO.	TEST CONDUCTOR SIGNATURE	GOVERNMENT WITNESS SIGNATURE	DATE

TEST DATA RECORDING

STEP	TEST ELEMENT	EXPECTED RESULTS	ACTUAL RESULTS
10	MODULE FRONT PANEL LEDS		
	1A1A1		
	+24V	Lit (Green)	_____
	-15V	Lit (Green)	_____
	+5V	Lit (Green)	_____
	1A1A2		
	+24V	Lit (Green)	_____
	-15V	Lit (Green)	_____
	+5V	Lit (Green)	_____
	1A1A3		
	+24V	Lit (Green)	_____
	-15V	Lit (Green)	_____
	+5V	Lit (Green)	_____

_____	_____	_____	_____
SHIP HULL NO.	TEST CONDUCTOR SIGNATURE	GOVERNMENT WITNESS SIGNATURE	DATE

TEST EQUIMENT USED

List all test equipment utilized in the test including all general and specialized test equipment, special test cables, attenuators, and any other materials requiring calibration. Include extra sheets as necessary to identify all test equipment.

GENERIC NAME	MODEL	SERIAL NO.	CALIBRATION DUE DATE	REMARKS

SHIP HULL NO.	TEST CONDUCTOR SIGNATURE	GOVERNMENT WITNESS SIGNATURE	DATE

COMMENTS

This sheet is provided for the test conductor or Government witness to make appropriate comments including the following:

a. Visual observations of dynamic responses;
b. Erratic or unusual equipment behavior;
c. Operational or handling difficulties;
d. Procedural corrections;
e. Equipment malfunctions;
f. Discrepancies noted during test conduct; and,
g. Waivers including reference to authorization document, i.e., letter, message, etc.

Indicate if a Test Problem Report (TPR) was generated with respect to these or other problems.

SHIP HULL NO.	TEST CONDUCTOR SIGNATURE	GOVERNMENT WITNESS SIGNATURE	DATE